DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

M4-401RW 4 Channel Linux Network DVR is specially designed for home and small businesses use. M4-401RW is built in with one removable harddisk, one BENQ DVD-RW, CF card and IEEE 1394 port for easy back up. You can connect either two CCTV monitors or VGA monitor for local surveillance.

It applies enhanced hardware MPEG 4 and MPEG 4/Part 10 (H.264) hardware compression technique and equipped with high-speed DSP digital processing chipset as well as efficient integrated circuits for noise reduction; featuring low power consumption, rapid response, clear frame and high compression ratio.

In view of high video recording resolution, affordable cost and strong network functions of remote real-time monitoring, playback, back-up files via IE Browser, M4-401D1 4 Channel DVR, making it preferred for network digital recording and monitoring in such sectors as home, offices, chain stores etc.

DVR 4/8-channel, Ethernet, DVD-RW without HDD

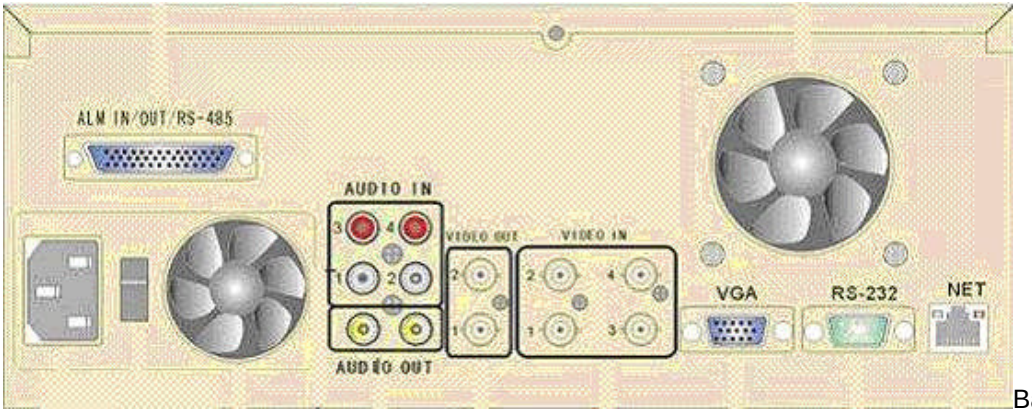
SMT-M4-401RW/ 404RW/ 804RW

M4-401RW DVR Structure:

Front Panel

Connection ports on the back:

Audio, video, PTZ control and alarm input/output ports connection:



Back Panel

System Configuration:

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

4 channel real time display and recording.
Using remote controller and front panel to record, playback and access all functions easily.
Two Multiplexer TV outputs with real time 4 channel display.
PTZ cameras control in local or remote side.
Powerful remote functions for remote view, playback, download and setting via IE browser.
DVD-RW and IEEE 1394 port back up and CF card for software upgrade.
4 sensor inputs and 4 alarm output for external alarming devices.
Built in RS232 & RS485 connectors to connect max. 4 PTZ cameras in one system.
2 channel audio input and 2 audio output (stereo).

Features:

DVD-RW, one removable hard disks and IEEE 1394 port back up.
Embedded one DVD-RW, one removable hard disks and IEEE 1394 port, it makes M4-401RW very easy t
back up all files by changing new hard disks or save recording clips in IEEE 1394 removable hard disks.

Linux operation system, Excellent stabilities, high performance and low power consumption and heat emanation.
M4-401RW 4 Channel MPEG 4 DVR is built in Linux operating system, featuring low power consumption excellent stabilities and high performance.

CF card back up and software upgrade.
You can use CF card for back up recording clips and upgrade latest software in our M4-401RW easily.

Hardware MPEG 4/Part 10 (H. 264) hardware compression & high video recording.
Applying enhanced MPEG 4 and MPEG 4/Part 10 (H. 264) compression technique and equipped with high speed DSP digital processing chip as well as efficient integrated circuits for noise reduction, featuring low power consumption, rapid response, clear frame and high compression ratio.

Real Time Video/Audio recording for each channel at low HD space.
Applying the hard disk encoding compression technique for each channel of audio/video signal, SecuMaster's M4-401RW DVR supports the substantial real-time (25 frames/second/channel at PAL, 30 frames/second/channel at NTSC) recording compression at low hard disk space. Recording parameter of each channel is adjustable for a good quality of replaying.

Powerful remote functions via IE Browser.
Support remote real-time monitoring, playback, back-up files, PTZ control via IE Browser.

User-friendly control interface.
Providing the embedded operating mode on control key of front panel, and remote controller which feature friendly man-machine interface. Every channel of video signal, with optional setting of stamping content with the name of camera and time displaying.

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

Specification

Spec/Model		M4-401RW	M4-404RW	M4-804RW
System	UI Language	English		
	User Interface	Front panel operation interface (OSD menu), remote controller		
	Security	User level password, administrator password		
	Operating System	Linux (Slim version)		
	Compression	Hardware MPEG 4 / H.264		

Video	Video System	NTSC / PAL	
	Video Input	4 channel independent inputs with 1.0Vp-p, 75 ohm BNC	8 channel independent inputs with 1.0Vp-p, 75 ohm BNC
	Video Output	2 NTSC/PAL output with 1.0Vp-p, 75 ohm BNC; 1 composite video signal VGA output	
	Video Display	1/2/4 windows per screen	1/2/4/8 windows per screen
	Video Standard	NTSC: 30 frames per second CCIR525 lines 60 Hz PAL: 25 frames per second CCIR 625 lines 50 Hz	
	System Resource	1/4 channel real time recording and surveillance	1/8 channel real time recording and surveillance

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

Digital Processing and storing	Encoding	MPEG 4 Variable encode rate / Fixed encode rate		
	Image Format	D1: 704x576 pixels for PAL or CIF: 352x288 pixels for PAL D1: 704x480 pixels for NTSC or CIF: 352x240 pixels for NTSC		
	Video Standard	ISO14496		
	Audio Standard	ISO11172		
	Video Freq.	6.25K-350Kbyte/S for 1/2 D1 & 6.25K-250Kbyte/S for CIF		
	Audio Freq.	24Kbyte/S		
	Audio Size Rate	28.8Mbyte/hour		
	Video Size Rate	22.5M-1260Mbyte/hour for 1/2 D1 and 22.5M-900Mbyte/hour for CIF		
	Removable HDD storage IDE	1 IDE	3 IDE	3 IDE
	DVD-RW built in	Yes	Yes	Yes
	Image Quality	8 adjustable levels		
	Max. Recording Frame Rate	NTSC: 30 frames / sec / channel PAL: 25 frames / sec / channel		
	Resolution	Playback: 704x576 pixels (4 split screen) Real time display: 704x576 pixels VGA output: 704x576 pixels		Playback: 352x288 pixels Real time display: 704x576 pixels VGA output: 704x576 pixels
	Data Capture	Bi-directional		

Alarm	Motion Detect	Independent setting with each channel, with 192 detect region for each channel and adjustable motion sensitivity	
	Input	4 independent input channels	8 inputs
	Output	4 independent alarm output (2 voltage output, 2 open switch with output at 12VDC, 500MA)	8 outputs
	Alarm Mode	Open / Close	
Com Port	Serial Port	RS485, extendable with external modem. RS232, common serial port.	
	Network Port	RJ-45 10M/100M broadband port	

Main Functions:

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

Real Time Monitoring Function

- Multiple output interfaces, e.g. video monitor, VGA display etc.
- Real time monitoring with 1 and 4 windows splitting.
- Automatic identification on system of NTSC or PAL.

Video Recording Function

- Applied in image compressing the invariant code stream, variable code stream frame rate and MPEG 4/Part 10 (H.264) hardware compression technique.
- 4 channel real time hardware compression supported, for simultaneous audio/video recording & playback with no delay.
- 8 optional compression grades available for every channel of video.
  Real time stereo audio monitoring for audio signal channel.

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

Playback Function

- 4 channel video playback simultaneously. Monitoring/video record/playback/backup simultaneously supported.
- Manual recording, continuous recording, motion-detection recording and alarm recording of video recording modes as well as 10 seconds pre-recording application.
- Searching modes on video recording including n accordance with channel, time, date and trigger event.
- Multiple recording playback mode: fast forward, slow motion, forward, backward, pause, frame by frame etc.
- Video recording resolution as high as 704*576 (four split scree).

Storage Function

- Two removable hard disks support without capability limit for each.
- Overlapping cyclic/acyclic recording available for the video recording files on the hard disk.
- The recording files at hard disk are also able to be downloaded on network.
- The files could be backed up via external IEEE 1394 HDD at the recorder.

Alarm Function

- Portable sensing alarming with adjustable detection sensitivity (0-99) applied.
- Video loss alarming.
- 4 alarming inputs to connect external alarming devices.
- Output of 4 channel of external witching value for interlocked alarming.
- The video recording process, exterior switching movement, acousto-optic alarming and electronic map switching could all be activated in linkage with alarming for targeting the camera to an assigned position.
- Alarm massage and related video images would be automatically sent to pre-set authorized computers during alarming.

Network Function via IE Browser

- Remote network real-time monitoring.
- Remote network search and playback of the files in the digital video recorder.
- Remote network file back-up into authority preset computers.
- Bi-directional audio/video transmission supported.
- Remote network control over PTZ cameras.
- Remote maintenance for the recorder through the remote setting/modification on parameters.
- Bi-directional phonic talk-back available via the network.
- Steam protocol supported (RTP/RTCP, RTSP) for direct access and control over it via network.
- Self-regulation on network flow: Automatically reduce the video data flow in high flow condition to ensure the normal operation of other service on the network (the flow would not be auto-reduced when alarmed).
- Automatic detecting and recovering of network delay.
  Applicable for diversified network environments.

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

Control Function

- Compatible with various communication protocols on pan/tilt decoder for the control over the pan/tilt scanner.
- Compatible with various communication protocols on PTZ camera for the control over it.
- Compatible with various communication protocols on alert interface cabinet for receiving external warning massages and the control over auxiliary devices.
- Compatible with multiple matrix communication protocols for the control over them.
- Pan/tilt scanner position pre-setting and the I/O control over warning linkage.
- Power failure alarm and re-powered reset.
- Automatic screen-locking.
- Interconnection supported to other monitoring system (e.g. those in public security, fire control, entrance guard etc.) for the implementation of interlocked intersystem warning.

Interface

- Interface RS-232/485, which could also act as transmission channel, for the controls over pan/tilt scanner, PTZ cameras, consoles, entrance guard controller, arrays, warning interface cabinet and other external devices.
- Interface RS-232 for the networking operation and image transmission via its connection with MODEM or for the system maintenance or upgrading through its connection with serial port on computers.
- Network interface of 10/100 Base-T for remote network access.
- IEEE 1394 interface and CF card for backup of video recording documents.

Security Management Function

- 2-step user management system to ensure the general users could only monitor the authorized camera or browse the authorized video recording files.
- Multi-grade encryption-fortification control.
- Establishment of users' rights and command consultation.
- Water-mark technology avoiding deleting or violence against images.
- Perfect log administration system.

Display Interface

- Pull-down graphical user interfaces.
- Every channel of video signal, with optional setting of heading content and area, would be superimposed with camera name and time displaying.
- Real time displaying of the current operating mode of the digital video recorder.
- Control via specialized infrared remote-controller and panel buttons.

Defensive Function

- Alarm for power failure, and system re-startup as power resume.
- Auto screen-locking.

DVR 4/8-channel, Ethernet, DVD-RW without HDD

SMT-M4-401RW/ 404RW/ 804RW

Video

- Compression Standard: Enhanced MPEG 4 invariable code stream and MPEG 4/Part 10 (H.264) hardware compression.
- Playback Resolution: FULL D1 (704*576) ~ CIF (352*288)
- Real-time Monitor Resolution: 704*576
- Network Monitoring Resolution: FULL D1 (704*576) ~ CIF (352*288)
- Image Frame Rate: 25 frames per channel/second (adjustable) in PAL system 30 frames per channel/second (adjustable) in NTSC system
- Number of Video Recording Channels: 2/4/8/9/16 channels
- Network Transmission Delay: < 0.5 second
- Alarm Tone Pre-recording: 10 seconds
- Output Code Rate: 50kbps ~ 1600kbps
- Video Input Level: 1.0 Vp-p multiplex video signal
- Video Output Level: 1.0 Vp-p multiplex video signal
- Video Input impedance: 75 ohm
- Video Output Impedance: 75 ohm
- System: PAL, NTSC

Audio

- Compression Standard: G.723/ADPCM, 8K sampling frequency
- Audio Input: Line level input
- Audio Output: Line level output
- Amount of Channels on Network Transmission: 8 channels
- Sampling Frequency: 8K

Power Support

Power: 220V+-25% 50+-2% HZ
Power Consumption: 40W

Mechanical Index

Dimension: 285 x 385 x 123, standard 2U cabinet
Weight: 5.5 Kgs

Environmental Condition

Operating Temperature: -10 degree C ~ 55 degree C
Storage Temperature: -15 degree C ~ 65 degree C
Operating Humidity: 0~95%, non-condensatio